Design and Application of Online Teaching Platform for Intelligent Thinking and Politics Based on Web Technology

Xiaowen Song[(✉)]

Chongqing College of Architecture and Technology, Chongqing, China
`1337558981@qq.com`

Abstract. Based on the Web technology system, the online teaching platform of ideological and political education in colleges and universities designed with Spring framework as the core is designed to give full play to the characteristics of online education, complement the advantages of traditional classroom teaching, and promote the development of ideological and political education in colleges and universities to "online + offline" mode. The platform integrates students' ideological and political learning needs and teachers' ideological and political teaching needs, and exerts its strength from the front, middle and back dimensions of ideological and political education. To help students establish a correct political position and value orientation and become qualified socialist construction talents.

Keywords: Web Technology · Java · online education · ideological and political education · computer applications

1 Introduction

The ideological and political course in colleges and universities is an important channel to realize the fundamental task of "cultivating people by virtue". The college students are in the critical period of forming their world outlook, outlook on life and values. Colleges and universities shoulder the important task of cultivating students into talents with political ideas, moral sentiments and healthy psychology, so that the party can succeed others in its great achievements [1]. However, at present, there are still many problems in ideological and political education in colleges and universities. Most of the teaching contents are theoretical written knowledge, which can't arouse students' learning enthusiasm, and rarely can be combined with practice, resulting in the disconnection between learning and practice. The teaching forms are mostly unilateral lectures by teachers, passive knowledge infusion by students, and students "recite" ideological and political knowledge rather than "understand". The way of ideological and political assessment is mostly retelling the principle knowledge, which can't guide students to think deeply, and becomes a mere formality, and the actual effect is not high [2].

So the author thinks that, in view of the existing problems in the ideological and political education in colleges and universities, an online teaching platform for ideological and political education in colleges and universities is designed. The platform

creates an atmosphere of daily study of ideological and political content, establishes a long-term mechanism for lifelong learning of ideological and political education, and helps students become moral, conscious and literate talents in the new era [3].

2   Key Technologies

2.1   Java

The Java language is a programming language. It has learned many advantages of C++ language, and removed the concepts of pointer, multi-inheritance, etc., which are difficult to understand and useless in C++. The biggest feature of Java is object-oriented (OOP), which supports classes, objects, inheritance, encapsulation, polymorphism, interfaces, packages and so on [4].

2.2   Spring

The Spring is a layered open source framework, which provides a full-stack development scheme. There are SpringMVC in the web layer, jdbcTemplate in the Dao layer, and transaction processing in the Service layer. Spring is a layered open source framework, providing a full-stack development scheme. There are SpringMVC in the web layer, jdbcTemplate in the Dao layer, and transaction processing in the Service layer. The Spring can integrate various excellent frameworks, such as Struts, Hibernate, MyBatis, Quartz, etc., and provide encapsulation functions for some API(JDBC, JavaMail, remote call, etc.) that are difficult to use in enterprise-level application development, making JavaEE application development simple and convenient [5].

2.3   Development Environment

According to the requirements of the above related application technologies, complete the configuration and deployment of the development environment of the online teaching platform for ideological and political education in colleges and universities. At first, the operating system of the system is Windows 10.0, Tomcat 8.0 on the Web server, Eclipse as the bottom development tool, 1.8.0_91 as the Java Language Development Kit (JDK), Spring5.3.7 as the development framework and MySQL5.8 as the database server [6].

3   Function Realization

3.1   Student Terminal

The students enter the online teaching platform of ideological and political education in colleges and universities, click on the "student-side" entrance, and enter the account number and password to log in. After successful login, you will see three paging buttons on the homepage: interest guidance, knowledge internalization and assessment application [7]. In the "Interest Guidance" page, students can preview the ideological and

political content before class. The types of learning resources include: besides conventional electronic textbooks, books have abundant extracurricular reading resources, such as traditional culture books, Marxist-Leninist-Mao-Deng classics, etc. In addition, the network learning platform of ideological and political education in colleges and universities also provides a large number of extracurricular development learning resources such as video, audio, graphic materials, such as TV series, movies, documentaries, audio ideological and political courses, songs, pictures, etc. The system has made statistics on the resource utilization rate in the past year, and the statistical results are shown in Fig. 1.

In the "Knowledge Internalization" page, there are mainly three ways: knowledge framework, note sharing and problem discussion. In the "Knowledge Framework" module, students can sort out the knowledge framework in groups and structure the complex knowledge points. In the "Note Sharing" module, students can share their own reading notes, view other people's reading notes and make simple comments. In the "Question Discussion" module, students can publish their understanding of the ideological and political content or ask questions. Under each post, teachers and students can discuss. The implementation code is shown in Fig. 2 [8].

The "Application of Assessment" page is mainly aimed at the after-class stage, which mainly guides students to really absorb and apply classroom knowledge into practice, including two aspects: homework and examination, practice and application. The assessment is divided into daily homework and periodic tests. On the basis of

Fig. 1. Statistical chart of resource utilization rate (original)

```
<!DOCTYPE html>
<htmllang="en">
<head>
        <meta charset="UTF-8">
        <title>Problem study</tile>
        <link type "tetxt/css" rel"tylesheet" href "ISTest4.css" />
</head>
<body>
<div class="bbs">
        <header>< span ondlick-"TWantPos0">I want to post</span></header>
        <sectlon>
            <div>
```
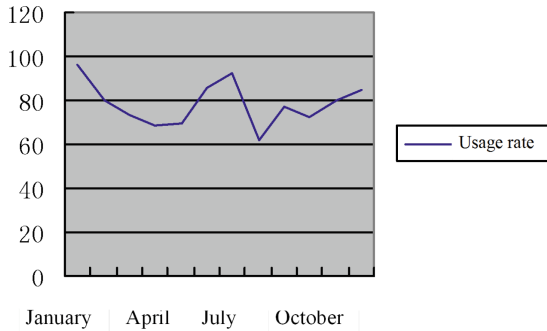
Fig. 2. Problem Discussion on the " functional implementation code(original)

```
<%@ pagelanguage="java" import="java util.*" pageEncoding="utf-8"%>
<%
    String path = request.getContextPath();
                            String           basePath        =
Request.getScheme()+"://"+request.getseverName()+":"+request.getSeverPort()+path+"/"; %>
<!DOCTYPE HTML PUBLIC"-//W3//DTD HTML 4.01 Transitional//EN">
<html>
<head>
  <base href="<s=basePoth%>" rel"entemal nofollow">
  <title> upload a video </title>
  <meta http-equiv=" pragma" content=' no-cache">
  <meta http-equlv="cache control" content="no-cache">
  <meta http-equiv="expires" content="()">
  <meta http-equiv="keywords" content="keyword1,keyword2,keyword3">
  <meta http-equiv=" description" content= "Thisis my page">
```

Fig. 3. Video upload code in part (original)

retelling multiple-choice questions of knowledge points, subjective questions are added to guide students to think about the ideological and political content. In the "Practice and Application" module, students can view various practical activities initiated by teachers, such as field visits, volunteer service activities, questionnaire activities, etc. After the practice, students can submit a practice report, which can be used as one of the assessment references of the test [9].

3.2 Teacher Terminal

The function of teachers pays more attention to the overall management of ideological and political education and the supervision of the whole process of learning. Therefore, the teacher terminal function module is equipped with teaching resources uploading, problem communication and discussion, homework examination arrangement, practical activity organization and so on [10].

In the "Teaching Resources Uploading" module, teachers can upload, edit, modify and delete their selected resources, and guide and supervise the learning process by referring to the total number of students and the duration of each student's study. This part involves a lot of codes. Here, only the video uploading code (part) is shown in Fig. 3.

4 Conclusion

The online teaching platform of ideological and political education in colleges and universities integrates network information technology with ideological and political education in colleges and universities, which forms a good supplement to traditional classroom teaching, stimulates students' learning interest and improves the teaching effect of ideological and political education in colleges and universities. To contribute to the cultivation of the builders of the new era with cultural literacy, moral sentiments and political ideas. In the future exploration and practice, we will continue to deepen the improvement of the online teaching platform of ideological and political education in colleges and universities, and turn ideological and political education into an excellent course and a popular course.

References

1. Zhang Ning. Grasp the Importance of Ideological and Political Education [N]. Guizhou Daily. 2019.03
2. Huang Junyong. Research and Design Based on Spring Framework [J]. Computer Knowledge and Technology. 2018.01
3. Ding Yan, Hu Fen. The Dilemma and Thinking of the Ideological and Political Construction of College Curriculum [J]. Higher Education Forum 2021 (12)
4. Qin Qiuyan. Research on Innovation of Ideological and Political Teaching in Special Period [J]. Yellow River and Yellow Loess 2021 (17)
5. Chu Qian. Design and Implementation of Personalized Teaching System for Online Learning [D]. Shandong Normal University. 2019
6. Gao Liying, Du Mingshu.Comparative Advantage and Practice of Ideological and Political Online Teaching [J]. Modern Vocational Education. 2021(23)
7. Wu Xuanming. Research on Ideological and Political Teaching Design of Adult Education Curriculum Based on Online Learning Space [J]. Journal of Lianyungang Vocational and Technical College. 2020(04)
8. Ren Xi, Zhou Yuehong. Design and Practice of Ideological and Political Teaching of College English Courses based on the Trinity of Network, classroom and practice [J]. China Educational Technology & Equipment. 2021(07)
9. Wang Yin, Lu Jun. Curriculum Ideology and politics into Law undergraduate teaching paradigm reform and practice -- Starting from "Internet + Classroom Teaching" [J]. Theoretical Research and Practice of Innovation and Entrepreneurship. 2021(04)
10. Hou Yuanyuan. Research on Blended Teaching Design of Ideological and Political Courses in Higher Vocational Colleges Based on Online Curriculum Platform [J]. Invention and Innovation (Vocational Education). 2020(03)